SYSTEM AND METHOD FOR FLOW MONITORING AND CONTROL

ABSTRACT OF THE DISCLOSURE

[0058] One embodiment of the present invention can include a flow control device comprising an inlet, an outlet, a pressure loss element between the inlet and outlet, a pressure sensor located upstream from the constriction configured to measure a first pressure of a fluid flowing through the flow control device, a pressure sensor located downstream from the constriction, configured to measure a second pressure of the fluid flowing through the flow control device; and a controller coupled to the first pressure sensor and the second pressure sensor to generate a valve drive signal. The controller can generate a valve control signal based on a differential between the first pressure and the second pressure during a first mode of operation. The controller can also generate a valve control signal based on a measured pressure at a particular pressure sensor during a second mode of operation. The mode of operation can automatically switch.